



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF34-10A16/16-B BYPASS RATIO: 5.7
 UNIQUE ID NUMBER: 01P11GE202 PRESSURE RATIO (π_{co}): 25.1
 COMBUSTOR: SAC
 ENGINE TYPE: TF RATED THRUST (F_{oo}) (kN): 76.9

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F _{oo} (g/kN) or SN	18.4	111.9	40.6	14.2
AS % OF ORIGINAL LIMIT	93.9	94.8	45.0	55.8
AS % OF CAEP/2 LIMIT (NO _x)			56.3	
AS % OF CAEP/4 LIMIT (NO _x)			65.8	
AS % OF CAEP/6 LIMIT (NO _x)			73.0	
AS % OF CAEP/8 LIMIT (NO _x)			84.3	

For non-volatile particulate matter (nvPM) emissions, please refer to the ICAO Engine nvPM Emissions Data Sheet.

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 - OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F _{oo})	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.765	0.06	0.49	17.87	11.1
CLIMB OUT	85	2.2	0.632	0.08	0.34	15.04	5.1
APPROACH	30	4.0	0.219	0.14	3.98	7.97	0.1
IDLE	7	26.0	0.083	6.96	52.05	3.45	0.4
LTO TOTAL FUEL (kg) or EMISSIONS (g)			298	919	7014	2696	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F _{oo} (g/kN) or AVERAGE SN (MAX)				11.9	91.2	35.0	11.1
SIGMA (D _p /F _{oo} in g/kN, or SN)				0.6	1.9	0.4	0.6
RANGE (D _p /F _{oo} in g/kN, or SN)				11.2-12.3	89.4-93.2	34.6-35.4	10.5-11.7

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT All POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT All POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.2-97.9
TEMPERATURE (K)	296-300
ABS HUMIDITY (kg/kg)	0.0099-0.0127

FUEL

SPEC	Jet A-1
H/C	1.92
AROM (%)	16.3-17.4

MANUFACTURER: General Electric Company
 TEST ORGANIZATION: Peebles Test Operation
 TEST LOCATION: Site 4D
 TEST DATES: 05/09/2006-10/09/2006

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
	2.3.2 d) (CAEP/6)
x	2.3.2 e) (CAEP/8)

REMARKS

- GE Report R2007AE480Engine 994-251/1
- Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
- NO_x levels in accordance with Part III, Chapter 2, 2.3.2 e)

Compliance with Fuel Venting requirements:

x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)